Waterfront Maintenance Note Number 10

AEGIS MK99 Fire Control System Collimation

Ref: (a) Combat System Alignment Manual (CSAM) (SW225-BN-CSA-010) for CG-47 Class
(b) Combat System Alignment Manual (CSAM) (SW225-CH-CSA-010) for DDG-51 Class
(c) MRC 4829/001 Q-8 Check Borescope Control Panel, Check Telescope Focusing Ring

1. Purpose: To establish procedures for scheduling and conduct of collimation for the AN/SPG-62 Radar Antenna.

2. Background: IAW refs a & b, the AN/SPG-62 Radar Antenna must be collimated by a shore support activity every four years or if:

a. Any radar director antenna, reflector, waveguide or primary RF feed horn is replaced, added, or modified.

b. Any radar director alignment telescope (borescope) is replaced, added or modified.

This waterfront maintenance note describes responsibilities and procedures for AN/SPG-62 collimation.

3. Procedure:

a. Ship's Force (S/F) shall:

1) Coordinate collimation through their respective Maintenance Teams (Port Engineer and Ship's Superintendent), submitting a 4790/2K (2K) for each antenna to be collimated.

2) Ensure adherence to the following:

(a) The ship must be in a clean RF environment to derive valid, repeatable data.

(b) The director must be in an operational status (not IEM) and must be clear of obstructions that would prohibit rotation/elevation.

(i) Since the collimation tower transmits RF energy, ammunition handling or HERO operations in the vicinity of the ship are prohibited.

3) Accomplish preliminary steps a-d, steps 1a-1j, and step 2 of ref c.

4) Provide a minimum of two dedicated personnel for the duration of the collimation.

5) Provide 2 IVCS headsets and ensure jackboxes are operational for communication from the director to the respective radar room.

6) Run man aloft on the day of collimation (do not tag-out power to the director controller as jog power is needed for collimation).

b. SERMC shall:

1) Provide the portable collimation tower and all necessary test equipment.

2) Conduct the collimation and make any necessary adjustments while providing training to S/F.

3) Provide a copy of the collimation data sheet to the CSMM or STO for incorporation in the Smooth Log.

4. Points of Contact: For further guidance or information, contact the SERMC AEGIS MK99 Field Service Rep at 904-270-5126 x3061 or x5853.